

## ABSTRACT OF THE DISCLOSURE

Preferred embodiments and implementations include a system and method for determining distinct occurrences of a pattern in a sequence of time-stamped event instances by determining a maximum cardinality of disjoint occurrences of the pattern in the one or more sequences. The invention also includes estimating an expected quantity of distinct occurrences of a pattern in a sequence of time-stamped events assigned to event categories. The invention further includes identifying a surprise pattern within a sequence of time-stamped events.